



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

**REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866**

JUN 30 2017

Lawrence McShea, P.E.
Project Manager
Arconic Remediation
Arconic Technical Center
New Kensington, PA 15069-0001

Re.: Arconic, Inc. Massena, New York Facility, EPA I.D. No. NYD002232304 (formerly Alcoa, Inc.) Secure Landfill Cell 3 Expansion

Dear Mr. McShea,

The Environmental Protection Agency (EPA) Region 2 has reviewed Arconic's response, dated May 1, 2017, to EPA's comments transmitted March 30, 2017 on the following documents regarding the Secure Landfill Cell 3 expansion at the Massena, NY facility:

- Arconic's February 2017 Draft Final Construction Work Plan (CWP)
- Arconic's January 2017 Construction Quality Assurance Plan (CQAP)
- Arconic's February 2017 Draft Final Operation and Maintenance (O&M) Manual
- Arconic's February 2017 Draft Final Work Plan for Cell 3 O&M

Please find enclosed EPA's review of Arconic's response. We request that Arconic respond to EPA's remaining comments by July 31, 2017.

Please note that all conditions stipulated in EPA's March 30, 2017 letter, which provided conditional approval to commence construction of the Secure Landfill Cell 3 expansion, remain in effect.

If you have any questions, please contact me at (212) 637-4109 or via email at everett.adolph@epa.gov, or Nidal Azzam, Chief of our Base Program Management Section, at (212) 637-3748 or via email at azzam.nidal@epa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Adolph S. Everett".

Adolph S. Everett
Chief, Hazardous Waste Programs Branch

Enclosures



cc (w/encls.): Peter R. Taylor, NYSDEC Region 6 Headquarters

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TECHNICAL REVIEW

DRAFT FINAL CONSTRUCTION WORK PLAN AND CONSTRUCTION QUALITY ASSURANCE PLAN FOR SECURE LANDFILL CELL 3 EXPANSION AND RESPONSE TO COMMENTS LETTER REVISED APRIL 2017

ARCONIC INC., MASSENA, NEW YORK

Booz Allen Hamilton (Booz Allen) has completed a technical review of two revised documents pertaining to expansion of Secure Landfill Cell 3 at the Arconic Inc. (Arconic) facility in Massena, New York. These documents include the April 2017 Draft Final Construction Work Plan (CWP) and the April 2017 Revised Construction Quality Assurance Plan (CQAP) for the Cell 3 expansion effort. The facility's response to comments letter was also reviewed as part of this effort. Arconic's draft final submittals were reviewed for technical adequacy, potential impacts on concurrent Cell 3 operational activities, and compliance with Resource Conservation and Recovery Act and Toxic Substance Control Act regulations. As noted below, although most of the responses and revisions are acceptable, a few issues require additional discussion and/or clarification.

I. GENERAL COMMENT ON THE CWP

1. The response to this comment is acceptable.

II. SPECIFIC COMMENTS ON THE CWP

Section 1.0, Introduction

1. The response to this comment is partially acceptable, but the same correction (i.e., changing labels from Gate #5 to Gate #6) must be incorporated into CWP Drawing B-203361-JM and Appendix D Sheet 1.

Section 3.1, Work Plan Documents

2. The response to this comment is acceptable.

Section 4.2, Office Facilities and Work Zones

3. The response to this comment is acceptable.
4. The response to this comment is acceptable.

Section 4.5, Test Fill and Material Management Area Construction

5. The response to this comment is acceptable.

Section 4.8, Erosion Control

6. The response to this comment is acceptable.

Section 4.13, Install Compacted Clay Liner

7. The response to this comment is acceptable.

Section 4.14, Liner System Installation

8. The response to this comment is acceptable.

Section 4.17, Site Restoration and Vegetation Maintenance

9. The response to this comment is acceptable.

Section 4.18, Demobilization

10. The response to this comment is acceptable.

Section 6.0, Post-Construction Reporting

11. The response to this comment is acceptable with clarification. Expand the project schedule in Appendix E to include post-construction monitoring steps and development/submittal of the Final Report.

**III. COMMENTS ON CWP APPENDIX A, CELL 3 EXPANSION DESIGN
DRAWINGS AND SPECIFICATIONS**

1. The response to this comment is acceptable.
2. The response to this comment is acceptable.
3. The response to this comment is acceptable, pending receipt and review of proposed means and methods for winter stabilization after completion of the Cell 3 expansion.

Section 01010, Summary of Work.

4. The response to this comment is not acceptable. The intent of EPA's previous comment was for Arconic to clarify the term "full-time survey" in paragraph 1.02B(11), and to identify the scope of all surveys to be performed prior to, during, and upon completion of the Cell 3 expansion effort. Such detail has not yet been provided. Revise the specification accordingly.

Section 01300, Submittals.

5. The response to this comment is acceptable.

Section 01301, Design Change Order Procedures.

6. The response to this comment is acceptable.

Section 02200, Earthwork.

7. The response to this comment is acceptable.

Section 02272, Geotextile Fabrics.

8. The response to this comment is acceptable.

Section 02272, Geotextile Fabrics.

9. The response to this comment is acceptable.

Section 02273, HDPE Membrane Liner.

10. The response to this comment is acceptable.

Section 02273, HDPE Membrane Liner.

11. The response to this comment is acceptable.

Section 02274, Geonet.

12. The response to this comment is acceptable.

Section 02275, Geosynthetic Clay Liner.

13. The response to this comment is acceptable.

Section 02930, Loaming and Hydroseeding.

14. The response to this comment is acceptable.

IV. COMMENTS ON CWP APPENDIX B, CONSTRUCTION QUALITY CONTROL PLAN

Section 2.1, CQC Personnel

1. The response to this comment is acceptable.

Section 4.0, Earthwork Construction

2. The response to this comment is acceptable.

V. COMMENTS ON CWP APPENDIX C, TEST FILL WORK PLAN

General Comment

1. The response to this comment is acceptable.

Section 1.0, Introduction

2. The response to this comment is acceptable.

Section 2.0, Construction Materials

3. The response to this comment is acceptable.
4. The response to this comment is acceptable.

Section 3.0, Inspection and Testing

5. The response to this comment is acceptable.

Section 3.2, Test Fill Construction

6. The response to this comment is acceptable.

Section 3.4, Post-Construction Monitoring

7. The response to this comment is acceptable.

Section 5.0, Reporting

8. The response to this comment is acceptable.

VI. COMMENTS ON CWP APPENDIX D, STORMWATER POLLUTION PREVENTION PLAN

General Comment

1. The response to this comment is acceptable.

Section 3.1, Project Construction Activities for Cell 3 Operation and Expansion Mobilization

2. The response to this comment is not acceptable. Although Arconic states that Section 3.1 of the Stormwater Pollution Prevention Plan (SWPPP) will be revised to note that work zones and exclusions zones are provided on drawings in the O&M Manual, this edit has not been incorporated into the SWPPP. Revise Section 3.1 of the SWPPP to reference Figure 4-1 of the O&M Manual for these details.

Section 3.3, Project Construction Activities for Cell 3 Expansion

3. The response to this comment is acceptable.
4. The response to this comment is acceptable.

Section 4.0, Erosion and Sediment Controls

5. The response to this comment is acceptable.

Section 4.1, Erosion and Sediment Control Measures

6. The response to this comment is acceptable.
7. The response to this comment is acceptable.

Section 4.2, Erosion and Sediment Control Measures

8. The response to this comment is acceptable.

Section 4.3, Temporary Erosion and Sediment Control Measures

9. The response to this comment is acceptable.

Section 4.4.1, Establishment of Permanent Vegetation

- 10. The response to this comment is acceptable.
- 11. The response to this comment is acceptable.

Section 4.4.4, Permanent Turf Reinforcement

- 12. The response to this comment is acceptable.

Section 4.5.1, Solid and Liquid Waste Disposal

- 13. The response to this comment is acceptable.

Section 4.5.3, Water Source

- 14. The response to this comment is acceptable.

Section 4.5.5, Construction Housekeeping Practices

- 15. The response to this comment is acceptable.

Sheet 2, Soil Erosion and Sediment Control Details

- 16. The response to this comment is acceptable.
- 17. The response to this comment is acceptable.

Sheet 3, Soil Erosion and Sediment Control Details

- 18. The response to this comment is acceptable.
- 19. The response to this comment is acceptable with clarification. The response notes that the concrete truck washout area will be field located based on site conditions and in compliance with requirements outlined in Detail 10 on Sheet 3. However, Detail 10 has been removed from Sheet 3 in the April 2017 version of the SWPPP. Without this detail, the SWPPP provides no direction as to concrete truck washout area requirements. Revise the referenced sheet to include Detail 10, and to clarify that the exact location of this feature will be determined in the field.

VII. COMMENT ON CWP APPENDIX E, PROJECT SCHEDULE

1. The response to this comment is not acceptable. Although the response states that the project schedule will be adjusted to include a full 14-day post-construction monitoring period and a 7-day period for Agency review, the April 2017 schedule does not reflect this change. Revise and update the schedule accordingly.

VIII. COMMENTS ON THE CQAP

Section 2.1.1, Project Organization and Responsibilities

1. The response to this comment is acceptable.

Section 2.1.1.2, Arconic

2. The response to this comment is acceptable.

Section 2.3, Inspection Activities

3. The response to this comment is acceptable.

Section 2.3.3, Removal of Existing Waste and Liner from East Berm

4. The response to this comment is acceptable.

Table 2-3, Secure Landfill CQA Preconstruction Activities

5. The response to this comment is acceptable.
6. The response to this comment is acceptable.

Table 2-4, Secure Landfill CQA Construction Activities

7. The response to this comment is acceptable.
8. The response to this comment is acceptable.
9. The response to this comment is acceptable.
10. The response to this comment is acceptable.
11. The response to this comment is acceptable with clarification. Geotextile comments on page 4 of Table 2-4 still refers erroneously to Table 2-7 of the CQAP. Delete the last

sentence in this section of the comments to eliminate repetition and the incorrect references.

12. The response to this comment is acceptable.

Table 2-6, Secure Landfill CQA Summary of QA Testing

13. The response to this comment is acceptable.

Section 2.3.6, Geosynthetic Liners

14. The response to this comment is acceptable.

Table 2-7, Secure Landfill CQA Low-Permeability Material QA Clay Characteristics and Screening

15. The response to this comment is acceptable.
16. The response to this comment is acceptable with clarification. The frequency of nuclear moisture and density testing presented in this table (i.e., one per lift per 5,000 square feet) is still inconsistent with that specified in Section 2.4.1 (i.e., one per lift per grid cell measuring 70 feet by 70 feet, which translates into nine tests per lift per acre). Revise Table 2-7 to indicate a testing frequency for nuclear moisture and density to one per lift per 4,900 square feet, or nine tests per lift per acre.

Table 2-8, Secure Landfill CQA Geosynthetic QA Testing/Inspection Matrix

17. The response to this comment is acceptable.
18. The response to this comment is acceptable with clarification. The new comments regarding vacuum testing on page 1 of Table 2-8 should refer to Specification 02273, Section 3.03, Paragraphs G and H.

Table 2-10, Secure Landfill CQA Geosynthetic Liner – General Seaming Procedures

19. The response to this comment is acceptable.

Section 2.4.1, Low-Permeability Soil Liners

20. The response to this comment is acceptable.
21. The response to this comment is acceptable.

Section 2.4.5.3, Problem Identification and Corrective Measures Reports (PICRs)

22. The response to this comment is acceptable.

Appendix A, Control, Inspection, Measurement, and Testing Matrix, page A-1

23. The response to this comment is acceptable.

TECHNICAL REVIEW

DRAFT FINAL SECURE LANDFILL OPERATIONS AND MAINTENANCE MANUAL AND DRAFT FINAL WORK PLAN FOR CELL 3 OPERATION AND MAINTENANCE AND RESPONSE TO COMMENTS LETTER REVISED APRIL 2017

ARCONIC INC., MASSENA, NEW YORK

Booz Allen Hamilton (Booz Allen) has completed a technical review of two revised documents pertaining to operation and maintenance (O&M) of existing Secure Landfill Cell 3 at the Arconic Inc. (Arconic) facility in Massena, New York. These documents include the April 2017 Draft Final O&M Manual for Cell 3 and the April 2017 Draft Final Work Plan for Cell 3 O&M. The facility's response to comments letter was also reviewed as part of this effort. The responses and revisions to Cell 3 O&M documentation were evaluated for technical adequacy and compliance with applicable Resource Conservation and Recovery Act (RCRA) and the Toxic Substance Control Act (TSCA) regulations. As noted below, although many of the responses and revisions are acceptable, and few issues required additional discussion and/or clarification.

I. COMMENTS ON THE DRAFT FINAL O&M MANUAL FOR CELL 3

Section 1.2, Secure Landfill Description, page 3

1. The response to this comment is acceptable.

Section 1.3, Waste Quantities and Description, page 3

2. The response to this comment is acceptable.

Section 2.1.1, Cell 3 Preparation, pages 8 and 9

3. The response to this comment is acceptable.

Section 2.1.3, Subsequent Waste Lifts, page 9

4. The response to this comment is acceptable.

Section 2.2, Cell 3, page 9

5. The response to this comment is acceptable.

Section 3.1, Method of Operation, page 10

6. The response to this comment is not acceptable.

In response to this comment, the O&M Manual has been revised to show the location of an equipment decontamination area on the southern side of Cell 3 (north of the eastern end of the waste and bulk delivery road adjacent to the cell). However, it does not appear that this location is equipped with a ramp to allow for entry of hauling vehicles into the cell.

Related figures show two ramps located on the east side of the existing cell, which will become inaccessible for ongoing operation when the temporary berm is constructed to facilitate expansion of the cell. Clarify how waste-hauling vehicles will enter and exit the cell without damaging the landfill perimeter walls or crossing the temporary berm. If all in-unit vehicles are expected to remain in the landfill until the expansion is complete and the temporary berm is removed, the text should clarify that assumption.

The response to this comment also notes that the proposed decontamination pad will consist of wooden planks rather than a steel-floored structure. Section 1.1.1 of the January 2017 Preparedness, Prevention, and Contingency (PPC) Plan still indicates that this feature will be constructed of steel and should be corrected. Given the difference in permeability between a steel-floored pad and one lined with wooden planking, the O&M Manual should be expanded to provide details on how decontamination liquids will be contained and collected, as required by Section 3.4 of the O&M Manual.

7. The response to this comment is acceptable.

Section 3.3.2.2, Waste Placement, page 13

8. The response to this comment is acceptable.

Section 3.3.3, Waste Volume, page 13

9. The response to this comment is acceptable with clarification. As stated in the response, roughly 15,000 cubic yards of stockpiled steel in Building 120 will be stacked, organized, and compacted to approximately 640 cubic yards during placement in Cell 3. This compacted estimate was based on a conversion from weight to volume, and assumes that there will be no voids in the landfilled waste. While it is understood that this estimate is the goal, it is unlikely to be feasible in practice. Upon completion of waste placement, Arconic should provide an updated accounting of actual waste volume as disposed, which will affect remaining capacity in Cell 3.

Section 3.4, Decontamination, page 13

10. The response to this comment is acceptable.

Section 3.5, Physical Criteria of Waste, pages 13 and 14

- 11. The response to this comment is acceptable.
- 12. The response to this comment is acceptable.

Section 4.1, Waste Hauling Procedures, pages 15 through 17

- 13. The response to this comment is acceptable with clarification. This comment is not critical for placement of stockpiled steel into existing Cell 3. However, before transporting dredge sediment and other waste to the unit, off-site haul roads must be added to Figure 4-1 and provided to the New York State Department of Conservation and EPA for reference.
- 14. The response to this comment is acceptable.
- 15. The response to this comment is acceptable.
- 16. The response to this comment is acceptable.

Section 4.2.1, Operations and Maintenance, pages 17 and 18

- 17. The response to this comment is acceptable.

Section 4.3, Access Roads and Traffic Control, page 19

- 18. The response to this comment is acceptable.

Section 4.4, Waste Identification and Manifesting, page 19

- 19. The response to this comment is acceptable.

Section 4.8, Stormwater Management, page 22

- 20. The response to this comment is acceptable.

Section 4.9, Soil Erosion and Sediment Control, page 23

- 21. The response to this comment is acceptable.

Section 4.10, Particulate Matter and Dust Control, page 23

- 22. The response to this comment is acceptable.

Section 4.11, Emergency Procedures, page 23

23. The response to this comment is acceptable.

Section 4.16, Site Security, page 24

24. The response to this comment partially addresses EPA's concern. However, it is still unclear whether authorized visitors (on site for reasons unrelated to direct waste disposal) may gain unauthorized access to the landfill. Clarify the O&M Manual to indicate whether such trespassing is a possibility and, if so, what precautions will be taken to prevent such occurrences.

Section 4.17, Site Inspection, page 24

25. The response to this comment is acceptable.
26. The response to this comment is acceptable.

Section 5.4, Equipment Maintenance Requirements, page 29

27. The response to this comment is not acceptable. Arconic stated that Section 5.4 of the Manual would be revised to clarify which equipment maintenance and repair tasks will be performed by heavy equipment suppliers, and which are the responsibility of the landfill operator. However, it does not appear that any related changes have been incorporated into the O&M Manual. Revise the document accordingly.

Section 6.1, Leachate Collection System Sampling and Analysis, page 30

28. The response to this comment is acceptable, provided that the facility's State Pollutant Discharge Elimination System (SPDES) requires testing of discharges for a broader suite of analytes than polychlorinated biphenyls (PCBs) alone.

Section 6.1.1, Primary Leachate, page 30

29. The response to this comment is acceptable.

Section 6.1.2, Secondary Leachate, page 30

30. The response to this comment is acceptable.

Section 6.1.3, Response Action Plan and Action Leakage Rate, page 35

31. The response to this comment is acceptable.

Section 6.2, Groundwater Sampling and Analysis, page 36

32. The response to this comment is acceptable.

Section 6.3, Surface Water and Stormwater Sampling and Analysis, page 36

33. The response to this comment is acceptable.

Section 6.4, Landfill Gas Monitoring, page 38

34. The response to this comment is acceptable.

Section 7, Administrative Procedures, pages 39 through 41

35. The response to this comment is partially acceptable, but an error is still included in Section 7.1.5. Revise this section to refer to 6 NYCRR Section 373-2.5(c)(2)(iv).

Section 7.1.4, Records and Results of Waste Analyses, page 39

36. The response to this comment is not acceptable. Although Appendix A indicates that Section 7.1.11 has been expanded to address the comment, the text has not been modified to specify recordkeeping requirements for generator determinations and/or analytical results used to determine hazardous waste characteristics; PCB concentrations in wastes to be disposed at Cell 3; and RCRA land disposal restrictions, as codified in 6 NYCRR Sections 373-2.5(c)(2)(xiii) and (xiv). Revise the O&M Manual accordingly.

Section 7.1.13, Annual Report, page 41

37. The response to this comment is acceptable.

Appendix A, Cross-References

38. The response to this comment is acceptable.

39. The response to this comment is acceptable.

40. The response to this comment is acceptable.

41. The response to this comment is not acceptable. The revised documentation (including Appendix A of the O&M Manual) still does not include references to TSCA regulations. Revise the submittals to document accordingly.

Appendix C, PPC Plan, Section 2.7, Accumulation of Excess Leachate, page 8

42. The response to this comment is acceptable.

Appendix C, PPC Plan, Section 3.2, Landfill and RWG Employees, page 9

43. The response to this comment is acceptable.

Appendix C, PPC Plan, Section 3.4, Facility Emergency Response Team, page 10

44. The response to this comment is acceptable.

Appendix C, PPC Plan, Section 5.2, Order of Response Actions by the Emergency Coordinator, pages 16 and 17

45. The response to this comment is acceptable with clarification. The direction to “Advance to Step 14” in the fifth bullet on page 16 has not yet been clarified or deleted. Revise the document accordingly.

Appendix C, PPC Plan, Section 5.3.1, Right to Not Respond, page 17

46. The response to this comment is acceptable.

Appendix C, PPC Plan, Section 5.3.3, Medical Surveillance, page 17

47. The response to this comment is acceptable.

Appendix C, PPC Plan, Section 6.4, Spills to Waters of New York State, page 21

48. The response to this comment is acceptable, but the four bullets in Paragraph A of Section 6.4 should be deleted for clarity.

Appendix C, PPC Plan, Section 6.6, Release of Airborne Hazardous Material, pages 23 and 24

49. The response to this comment is acceptable.

Appendix C, PPC Plan, Section 8.1.1, Cell Phones, page 26

50. The response to this comment is acceptable.

Appendix D, Stormwater Management Plan

51. The response to this comment is not acceptable. A review of 2015 National Weather Service rainfall data for the Massena International Airport indicates that a 24-hour, 25-year storm now equates to 3.85 inches of rainfall (as opposed to the 1993 estimate of 3.5 inches). As requested in the original comment, Arconic should evaluate stormwater management capacity and operations in light of the increased rainfall amounts.
52. The response to this comment is acceptable.

II. COMMENTS ON THE DRAFT FINAL WORK PLAN FOR CELL 3 O&M

General Comments

1. The response to this comment is acceptable.
2. The response to this comment is acceptable.
3. The response to this comment is acceptable.

Section 4.2, Office Facilities and Work Zones, page 4

4. The response to this comment is acceptable.

Section 4.4, Traffic and Access Control, page 5

5. The response to this comment is acceptable.
6. The response to this comment is partially acceptable. Figure 4-1 has been modified to refer to the Gate #6, but the text still refers to Gate #5. Revise this text to refer to the correct gate number.

Section 4.7, Erosion Control, pages 5 and 6

7. The response to this comment is acceptable.

Section 4.9.1, Interim Cover Removal/Disposal, pages 6 and 7

8. The response to this comment is acceptable.
9. The response to this comment is acceptable.

Section 4.9.2, Exposure of Underlying Primary HDPE Liner, page 7

10. The response to this comment is acceptable.

Section 4.9.3, Cleaning of Primary HDPE Liner, page 7

11. The response to this comment is acceptable with clarification. The revised text of Section 4.9.3 adequately clarifies scope of the liner decontamination task. However, the text should be further expanded to reflect additional details in the response. Specifically, the Work Plan (and appropriate expansion documentation) should state that the temporary berm will be constructed with a minimum of 10 feet of clean, decontaminated liner between it and the toe of slope of the waste remaining in place.

12. The response to this comment is acceptable.

13. The response to this comment is acceptable.

Section 4.9.6, Removal of ROPS Pad Material, Transportation, and Disposal, page 8

14. The response to this comment is acceptable.

15. The response to this comment is acceptable.

Section 4.9.10, Decontamination, page 11

16. The response to this comment is acceptable.

Section 6.0, Post-Construction Reporting, page 12

17. The response to this comment is acceptable.

